DOCUMENT RESUME

ED 276 887 CE 046 010

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TITLE Adults' Attitudes towards Continuing Education.
PUB DATE Oct 86
NOTE 16p.; Paper presented at the National Conference of the American Association for Adult and Continuing Education (Hollywood, FL, October 1986).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Adults; Attitude Measures; *Continuing Education; *Educational Attitudes; *Participation; Test Construction
IDENTIFIERS New Jersey

ABSTRACT

A study developed a valid and reliable measure to assess adult attitudes to continuing education. It determined the relationship between attitudes and participation in adult education and identified differences between the attitudes of subgroups of the adult population. A total of 275 adults from the central New Jersey area completed the Adults' Attitudes toward Continuing Education scale, which included 22 items on a five-point Likert scale. Seven items represented attitude-to-situation; the remaining items measured attitude-to-object. An index collected information about behavior related to adult education. Overall, the sample expressed generally favorable attitudes toward continuing education. Significant relationships existed between attitudes and sex, level of educational attainment, and family income. More favorable attitudes were also correlated with behavior as measured by the behavioral index. The identification of behavior as the single most important predictor of attitude suggested the importance of attitude research to a greater understanding of the differences between participants and nonparticipants in adult education. The instruments are appended. (YLB)

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ADULTS' ATTITUDES TOWARDS CONTINUING EDUCATION

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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The construct of "attitude" has an important place in current theory on participation in adult education (Cross, 1981; Darkenwald & Merriam, 1983). Attitudes are significant not only in affecting adults' participation in continuing education, but also are of potential importance in determining their support of adult education programs. Surprisingly, very few attempts have been made to assess adults' attitudes toward further education. In order to gain a better understanding of these attitudes and their relationship to behavior, such as participation in adult education, there is a need for a valid and reliable means of assessment.

Background

Scientific study of attitudes has been central in the field of social psychology. Research in this field has indicated that social behavior is mediated by two types of attitudes: attitude toward an object, and attitude toward the situation in which the object is encountered. Attitude-to-object by itself has not been found to have a consistent relationship with behavior; accordingly, current theory suggests that attitude-to-situation must also be assessed in order to accurately predict behavior (Rokeach, 1968).

Seaman and Schroeder (1976), in one of the few studies of adult attitudes toward continuing education, found no relationship between attitudes and educational participation. They concluded that other variables affected the influence of attitudes on extent of educative behavior. However, no evidence was given of the reliability or validity of the semantic differential technique developed by the researchers to assess attitudes. Although

CE 040 010

Paper presented at the National AAACE conference, Miami, Florida, October 1986

inadequately described, the instrument did not appear to measure attitude-to-situation.

Adolph and Whaley (1967) developed a Thurstone scale to measure attitudes to adult education and administered it to selected groups of adult education participants. As might be expected, all respondents expressed favorable attitudes to adult education. As noted by Blunt (1983), the study was marred by numerous flaws, including questionable scale development procedures, a nonrepresentative sample of inadequate size, and lack of sufficient empirical support for the validity of the scale.

In an attempt to develop a more useful instrument, Blunt (1983) developed a new Thurstone scale to measure attitudes toward adult education. With this scale, Blunt found small but significant correlations between attitude and years of schooling, social participation, socio-economic status, internal-external locus of control, and participation in adult learning activities. However, no attempt was made to include both attitude-to-object and attitude-to-situation on the scale, and therefore the size and significance of the correlations are questionable. In addition, due to evidence that attitudes toward adult education as measured by the scale were multifactorial, Blunt himself admitted that the scale was unsatisfactory.

The objectives of this study were (1) to develop a valid and reliable measure to assess adult attitudes to continuing education, including both attitude-to-object and attitude-to-situation; (2) to determine the relationship between attitudes and participation in adult education; and (3) to identify differences between the attitudes of subgroups of the adult population. An attitude was defined according to Rokeach (1968, p.112) as "a relatively enduring organizaton of beliefs around an object or situation predisposing one to respond in some preferential manner."

Methodology

Instrumentation

A number of different techniques are available for constructing attitude scales. The Likert scaling method was selected for this study because it has several advantages in comparison to other scales, including greater reliability and simplicity of scale construction (Aiken, 1983).

A preliminary step in the construction of the Adults' Attitudes toward Continuing Education (AACE) Scale was the development of an item pool. Some items were drawn from a previously developed scale measuring attitudes to adult education (Blunt, 1983) and scales measuring attitudes to education in general (Shaw & Wright, 1967). Additional items were generated by a panel consisting of 11 advanced doctoral students and faculty in adult education. Each item in the final pool of 88 items was evaluated by the panel according to Likert's (1932) criteria for attitude statements. Items that did not meet the criteria were modified or eliminated. In addition, care was taken to ensure that statements representing both attitude-to-object and attitude-to-situation were included. Thirty items were retained for a pilot instrument.

An index was also developed to collect information about behavior related to adult education. Five items assessing past and present participation in adult education, intention to participate, and encouragement of others' participation in adult education were generated,evaluated for clarity and validity by the panel, and included on the pilot instrument.

The pilot instrument was completed by 93 adults with diverse sociodemographic characteristics. The results of the pilot administration were evaluated with two item analysis procedures recommended by Likert (1932): correlational analyses, including a measure of reliability, and t-tests of the differences

between item means of high and low scoring subgroups of the sample. Based on the results of these analyses, eight items were deleted from the AACE scale. One item was dropped from the behavioral index.

The final form of the AACE scale has 22 items on a five point Likert scale. Seven items represent attitude-to-situation, and the remaining items measure attitude-to-object. The alpha reliability for the final form was .90. The alpha reliability of the behavioral index was .63. Evidence of the content validity of the scales was obtained from the evaluation of the items by the research panel.

The directions of the scale define continuing education as "credit and non-credit classes, workshops, seminars, discussion groups, conferences, training programs, and any other organized learning activity for adults who have completed or interrupted their formal schooling" and indicate that each item on the scale represents an opinion about continuing education. Respondents were asked to circle the response that best described their feeling about the statement (SD=strongly disagree, D=disagree, UN=undecided, A=agree, SA=strongly agree). A sample item is given below:

1. Continuing education helps people make better use of their lives . . . . . SD D UN A SA

A copy of the scale is included in Appendix A.

Sampling and Data Collection

A total of 275 adults completed the scale. Purposive sampling was used to ensure that the sample was representative of the general population, including adults of low socioeconomic status and low levels of educational attainment. The scale was administered to small and large groups of individuals identified by the research panel. The respondents completed the scale anonymously and sealed the form in an unmarked envelope to promote candid responses.

Sociodemographic information about the respondents was collected along with the scale data. Fifty-four percent of the respondents were female; their ages ranged from 18-70 years, with a mean of 39 years. Educational attainment was relatively high: 5.2% reported no educational credential, 27.5% had earned a high school diploma, 21.2% had completed four years of college, and 19.3% reported a graduate degree as their highest credential. Eight percent of the sample reported a yearly family income of less than $15,000; 32% between $15,000 and $29,999; 32% between $30,000 and $44,999; 27% reported a family income of more than $45,000. The majority (85%) of the respondents were white.

Data Analysis

A composite attitude score was computed for each individual by summing their scores on the individual AACE items. An attitude-to-object score and an attitude-to-situation score were also computed for each individual by separately summing the scores on the AACE items representing each type of attitude. A behavior score for each individual was computed by summing the scores on the behavioral index.

The AACE scores were used in correlational analyses with the behavioral index scores and with the sociodemographic data. One way analysis of variance procedures with the Scheffe test were used to identify significant differences between subgroups of the sample, including groups based on age, educational attainment, and family income. Multiple regression analyzes were employed to explore the usefulness of behavioral index scores and sociodemographic variables as predictors of attitudes.

Findings

The total scores on the AACE scale ranged from 46 to 108 (the possible range was from 22 to 110), with a mean score of 87.4 and a standard

deviation of 10.2. Of the total sample, 39.3% indicated that they currently were participating in some form of continuing education. Fifty-four percent had participated in more than one continuing education activity in the two years prior to completing the questionnaire.

Relationship of Attitude and Behavior

The results of the correlational analyses revealed significant correlations between the behavioral index scores and composite attitude($r = .39$), attitude-to-object ($r=.34$), and attitude-to-situation scores ($r=.37$). The correlation between current participation (the first item on the behavioral index) and composite attitude score was .20. All correlations were significant at the .001 level.

Relationship of Attitude and Sociodemographic Characteristics

A number of significant correlations were identified between attitude and sociodemographic characteristics. More positive attitudes were associated with higher levels of educational attainment and family income. Women were found to have more positive attitudes than men. No significant correlations were discovered between attitude and age or race. The correlation coefficients are reported in Table 1.

TABLE 1
Correlations between Attitude Score and Sociodemographic Variables

	Sex	Age	Education	Family Income	Race
Attitude	.23**	.07	.29**	.18*	.06

**p<.001 *p<.05

The one way analysis of variance procedures revealed no significant differences in attitudes between groups based on age. There was a significant difference ($p<.05$) between attitudes of adults with a high school diploma or no

educational credential and attitudes of adults with higher levels of educational attainment. The attitude scores of the three groups are reported in Table 2.

TABLE 2
Means and Standard Deviations of Attitude Scores of Groups by Educational Attainment

	N	Mean	SD
Group 1 (high school diploma or no credential)	83	84.08	9.9
Group 2 (some college education)	72	88.39	10.5
Group 3 (college graduate or higher credential)	106	89.49	9.9

There also was a significant difference ($p<.05$) in the attitudes of adults with low and high family income levels. The difference between the middle group and either the low or high group was not significant. A description of the groups and their attitude scores are in Table 3.

TABLE 3
Means and Standard Deviations of Attitude Scores of Groups by Family Income

Group (family income)	N	Mean	SD
Group 1 ($29,000 or less)	102	85.38	11.15
Group 2 ($30,000 - 44,000)	85	88.05	9.51
Group 3 ($45,000 or greater)	69	89.64	9.64

Predicting Attitudes

The predictive utility of the composite behavioral index scores and the previously described sociodemographic variables was investigated by entering them as independent variables into a stepwise regression equation with attitude score as the dependent variable. Three variables emerged as significant predictors ($p<.05$) of attitude: behavioral index score, sex, and educational attainment. Statistics for these variables are presented in Table 4. Age, family income, and race were not significant predictors.

Table 4
Summary of Regression Statistics: Attitude Score as Dependent Variable

Independent Variable	Multiple R	Adjusted R^2	Beta	F
Behavioral Index Score	.400	.156	.317	47.179**
Sex	.466	.211	.258	34.210**
Educational Attainment	.488	.229	.166	25.600**

**p<.001

Conclusions and Implications

Overall, the attitudes toward continuing education expressed by the sample in this study were generally favorable. There were significant relationships between attitudes and sex, level of educational attainment, and family income. These correlations for the most part were predictable based on prior theory about the relationship of attitudes and personal characteristics, and lend support for the validity of the scale.

More favorable attitudes were also correlated with behavior as measured by the behavioral index; the overall correlation was more substantial than correlations with participation identified in past research. This identified relationship, in addition to providing evidence of the AAACE scale's

validity, also demonstrates the utility of the behavioral index as a measure of a spectrum of behaviors associated with attitudes to adult education. The identification of behavior as the single most important predictor of attitude suggests the importance of attitude research as a way to gain a greater understanding of the differences between participants and nonparticipants in adult education.

A number of areas of further investigation are suggested based on this study. First, although the sample was reasonably representative of the central New Jersey adult population, administration of the scale to additional groups of adults with different sociodemographic characteristics, particularly minorities and the disadvantaged, is needed to gain more substantial information about differences in attitudes among the adult population in the United States. In addition, cross-cultural research is necessary to yield new insight into the attitudes of adults of different nationalities. Second, the relationship of attitudes and actual participation (not self-report data) should be determined. Finally, the extent to which participation leads to a change in attitude needs to be examined in order to provide additional insight into the relationship of attitudes and participation.

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APPENDIX A

ADULTS' ATTITUDES TOWARDS CONTINUING EDUCATION SCALE

THE STATE UNIVERSITY OF NEW JERSEY
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RUTGERS STUDY OF ADULTS' OPINIONS ABOUT CONTINUING EDUCATION

DIRECTIONS:

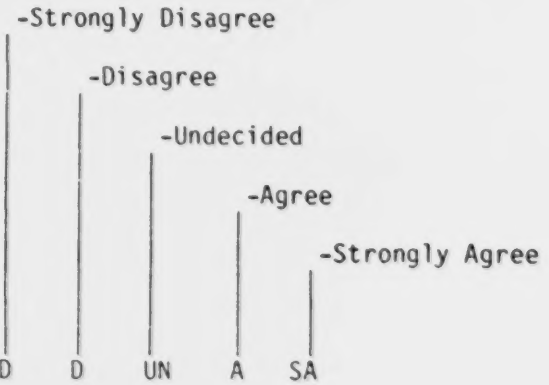
This questionnaire is part of a study intended to identify adults' opinions concerning continuing education. The term "continuing education" includes credit and non-credit classes, workshops, seminars, discussion groups, conferences, training programs, and any other organized learning activity for adults who have completed or interrupted their formal schooling.

Would you please take a few minutes to complete this questionnaire and seal it in the envelope provided? Your cooperation is most important to the success of the study. Your responses will be kept in the strictest confidence. Do not write your name anywhere on the questionnaire.

Please read the following list of statements. Each represents an opinion about continuing education. There are no right or wrong opinions. For each item, circle the response that best describes your feeling about the statement:

SD = strongly disagree
D = disagree
UN = undecided
A = agree
SA = strongly agree

Please circle only ONE response for each item. Be careful not to skip any items.



1. Continuing education helps people make better use of their lives . . . . . SD D UN A SA

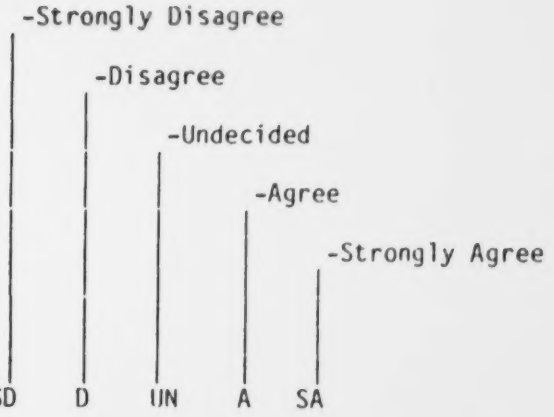
2. Successful people do not need continuing education . . . SD D UN A SA

3. I enjoy participating in educational activities . . . . SD D UN A SA

4. Education for adults is less important than education for children . . . . . SD D UN A SA

-Strongly Disagree
-Disagree
-Undecided
-Agree
-Strongly Agree

5. Continuing education is mostly for people with little else to do .	SD	D	UN	A	SA
6. The need for education continues throughout one's lifetime . . .	SD	D	UN	A	SA
7. I find learning activities stimulating	SD	D	UN	A	SA
8. Participating in continuing education is a good use of leisure time	SD	D	UN	A	SA
9. I dislike studying	SD	D	UN	A	SA
10. Going back to school as an adult is embarrassing	SD	D	UN	A	SA
11. More people should be encouraged to participate in continuing education	SD	D	UN	A	SA
12. Continuing my education would make me feel better about myself .	SD	D	UN	A	SA
13. Continuing education would not be of any benefit to me	SD	D	UN	A	SA
14. Continuing education is not necessary for most adults.	SD	D	UN	A	SA
15. I'm fed up with teachers and classes	SD	D	UN	A	SA
16. Being in a classroom makes me feel uncomfortable	SD	D	UN	A	SA
17. I enjoy educational activities that allow me to learn with others	SD	D	UN	A	SA
18. Money spent on continuing education for employees is money well spent	SD	D	UN	A	SA
19. For me, continuing education is less important than my leisure activities	SD	D	UN	A	SA



20. Continuing education is an important way to help people cope with changes in their lives . . . . . SD D UN A SA

21. The best way for adults to learn is to attend continuing education programs . . . . . SD D UN A SA

22. I can learn everything I need to know on my own without participating in continuing education . . . . . SD D UN A SA

Directions: The questions below refer to voluntary participation in continuing education. Exclude from your answers any non-voluntary continuing education, such as training required by an employer. For each question, please circle Yes or No.

1. Are you currently participating in some form of continuing education?

   1 Yes 2 No

2. During the past two years, did you participate in more than one continuing education activity?

   1 Yes 2 No

3. Can you recall participating in any form of continuing education three or more years ago?

   1 Yes 2 No

4. During the last year, did you intend to participate in a continuing education activity but for some reason did not do so?

   1 Yes 2 No

5. Have you ever suggested to another adult that he or she participate in some form of continuing education?

   1 Yes 2 No

PLEASE ANSWER THE FOLLOWING FIVE QUESTIONS ABOUT YOURSELF. REMEMBER THAT YOUR ANSWERS ARE COMPLETELY CONFIDENTIAL.

1. What is your sex? (circle one number)

   1. Female
   2. Male

2. What is your age? (write in number of years) _____years.

3. Please circle the number below that indicates the last year of schooling that you completed. For example, if you completed 8th grade, circle "8".

   1 2 3 4 5 6 7 8 9 10 11 12

   13 14 15 16 17

   College Graduate School

4. What is your approximate total family income before taxes (circle one number)

   1 Less than $15,000

   2 $15,000 to $29,999

   3 $30,000 to $44,999

   4 $45,000 or more

5. Would you describe yourself as: (circle one number)

   1. Caucasian (white)
   2. Black
   3. Asian-American
   4. Hispanic
   5. Other _____
      (describe here)

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE!